WEST

Help | Logout | Interrupt

Main Menu | Search Form | Posting Counts | Show S Numbers | Edit S Numbers | Preferences | Cases

Search Results -

Term	Documents
(2 AND 1).DWPI.	2
(L1 AND L2).DWPI.	2

Database: US Patents Full-Text Database; US Pre-Grant Publication Full-Text Database; JPO Abstracts Database; EPO Abstracts Database; Derwent World Patents Index; IBM Technical Disclosure Bulletins

Search: L3

Refine Search

Recall Text | Clear

Search History

DATE: Tuesday, February 11, 2003 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=DWPI; PLUR=YES; OP=ADJ			
L3	l1 and L2	2	L3
L2	nootkatone or zizanol or $10vetivenol	31	L2
L1	termite	1550	L1

END OF SEARCH HISTORY

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L3: Entry 2 of 2 File: DWPI Apr 26, 2001

DERWENT-ACC-NO: 2001-308321
DERWENT-WEEK: 200254
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TITLE: Protection of materials, e.g. wood building materials, against termite infestation, by treating with nootkatone, zizanol and bicyclovetivenol as the termite repelling or killing agent

INVENTOR: CHEN, F; HENDERSON, G ; HEUMANN, D O ; LAINE, R A ; ZHU, B C R

PRIORITY-DATA: 1999US-160251P (October 19, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 200128343 A1	April 26, 2001	E	030	A01N065/00
EP 1221854 A1	July 17, 2002	E	000	A01N065/00
AU 200110969 A	April 30, 2001		000	A01N065/00

INT-CL (IPC): A01 N 31/04; A01 N 35/06; A01 N 45/02; A01 N 65/00

ABSTRACTED-PUB-NO: WO 200128343A
BASIC-ABSTRACT:

NOVELTY - Protection of materials against termite infestation involves treating the material with a termite repelling or killing agent (I) selected from nootkatone, zizanol and bicyclovetivenol.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a protective barrier composition effective against termite infestation, comprising (I) and a substrate material or a wood building material.

ACTIVITY - Insecticide; insect repellent.

Nootkatone was incorporated in sand containing a Formosan subterranean termite (Coptotermes formosanus) at various concentrations. Consumption of filter paper by the colony was almost completely prevented at concentrations above 20 micro g/g and at least 90% mortality was observed at concentrations of 100 micro g/g or more.

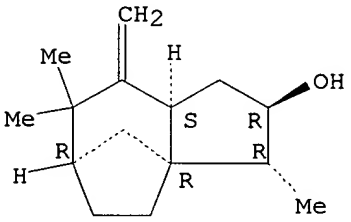
MECHANISM OF ACTION - None given.

USE - (I) is specifically used for treating soil, substrate, plastics, diatomaceous earth or cellulose-containing material, especially wood building materials (all claimed).

ADVANTAGE - The vetiver oil components (I) (especially nootkatone) are effective repellents and toxicants for termites (specifically the Formosan subterranean termite Coptotermes formosanus, which is difficult to control by conventional methods), at concentrations as low as 10 micro g/g. They significantly decrease food consumption and tunneling behavior and increase mortality in termites, and are environmentally safe and non-toxic to humans and other mammals.

L1 ANSWER 1 OF 3 REGISTRY COPYRIGHT 2003 ACS
RN 28102-79-6 REGISTRY
CN 1H-3a,6-Methanoazulen-2-ol, octahydro-3,7,7-trimethyl-8-methylene-, (2R,3R,3aR,6R,8aS)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1H-3a,6-Methanoazulen-2-ol, octahydro-3,7,7-trimethyl-8-methylene-, (2R,3S,3aR,6R,8aS)-(+)- (8CI)
CN 1H-3a,6-Methanoazulen-2-ol, octahydro-3,7,7-trimethyl-8-methylene-, [2R-(2.alpha.,3.beta.,3a.beta.,6.beta.,8a.beta.)]-
OTHER NAMES:
CN Ziza-6(13)-en-3.alpha.-ol
CN **Zizanol**
FS STEREOSEARCH
MF C15 H24 O
LC STN Files: AGRICOLA, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CAPLUS, TOXCENTER
(*File contains numerically searchable property data)

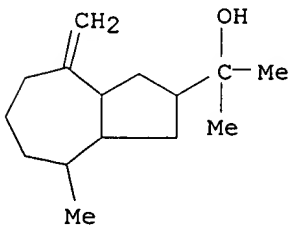
Absolute stereochemistry. Rotation (+).

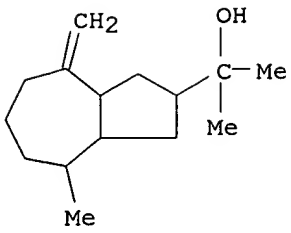


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

16 REFERENCES IN FILE CA (1962 TO DATE)
16 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L1 ANSWER 2 OF 3 REGISTRY COPYRIGHT 2003 ACS
RN 5957-31-3 REGISTRY
CN 2-Azulenemethanol, decahydro-.alpha.,.alpha.,4-trimethyl-8-methylene- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN **Bicyclovetivenol (6CI)**
OTHER NAMES:
CN tert-Bicyclovetivenol
DR 20303-94-0
MF C15 H26 O
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, TOXCENTER
(*File contains numerically searchable property data)



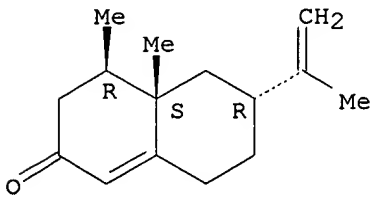


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

8 REFERENCES IN FILE CA (1962 TO DATE)
8 REFERENCES IN FILE CAPLUS (1962 TO DATE)
2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L1 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2003 ACS
RN 4674-50-4 REGISTRY
CN 2(3H)-Naphthalenone, 4,4a,5,6,7,8-hexahydro-4,4a-dimethyl-6-(1-methylethenyl)-, (4R,4aS,6R)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2(3H)-Naphthalenone, 4,4a,5,6,7,8-hexahydro-4,4a-dimethyl-6-(1-methylethenyl)-, [4R-(4.alpha.,4a.alpha.,6.beta.)]-
CN 4.beta.H,5.alpha.-Eremophila-1(10),11-dien-2-one (8CI)
CN **Nootkatone (7CI)**
OTHER NAMES:
CN (+)-Nootkatone
CN Nootkanone
FS STEREOSEARCH
MF C15 H22 O
CI COM
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU, DRUGU, IFICDB, IFIPAT, IFIUDB, NAPRALERT, SPECINFO, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

292 REFERENCES IN FILE CA (1962 TO DATE)
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
292 REFERENCES IN FILE CAPLUS (1962 TO DATE)
6 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L5 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:29183 CAPLUS
DOCUMENT NUMBER: 136:162704
TITLE: Efficacy of vetiver oil and nootkatone as soil barriers against formosan subterranean termite (Isoptera: Rhinotermitidae)
AUTHOR(S): Maistrello, Lara; Henderson, Gregg; Laine, Roger A.
CORPORATE SOURCE: Department of Entomology, Louisiana State University Agricultural Center, Baton Rouge, LA, 70803, USA
SOURCE: Journal of Economic Entomology (2001), 94(6), 1532-1537
CODEN: JEENAI; ISSN: 0022-0493
PUBLISHER: Entomological Society of America
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Vetiver oil and its components nootkatone and cedrene were assessed as sand treatments for their efficacy to disrupt food recruitment by Coptotermes formosanus Shiraki. Termites were required to tunnel through sand treated with vetiver oil, nootkatone, cedrene, or untreated sand to reach a food source. Results showed that sand treated with vetiver oil or nootkatone disrupted termite tunneling behavior. As a consequence, after 21 d, wood consumption and termite survival were significantly lower compared with cedrene-treated or untreated sand treatments. Sand treated with vetiver oil or nootkatone at 100 .mu.g/g substrate were effective barriers to termites.
REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
IT **4674-50-4**, Nootkatone 11028-42-5, Cedrene
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(efficacy as soil barrier against formosan subterranean **termite**)

L5 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:678276 CAPLUS
DOCUMENT NUMBER: 135:299936
TITLE: Effects of nootkatone and a borate compound on formosan subterranean termite (Isoptera: Rhinotermitidae) and its symbiont protozoa
AUTHOR(S): Maistrello, Lara; Henderson, Gregg; Laine, Roger A.
CORPORATE SOURCE: Department of Entomology, Louisiana State University Agricultural Center, Baton Rouge, LA, 70803, USA
SOURCE: Journal of Entomological Science (2001), 36(3), 229-236
CODEN: JESCEP; ISSN: 0749-8004
PUBLISHER: Georgia Entomological Society, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Wood treated with disodium octaborate tetrahydrate, with nootkatone, a natural ext. isolated from vetiver oil, or with both nootkatone and disodium octaborate tetrahydrate was tested for effects on Coptotermes formosanus Shiraki and its hindgut flagellates. After 7 d disodium octaborate tetrahydrate-treated wood induced high termite mortality and almost complete loss of flagellates, confirming the toxicity of borates to

these termites. Wood treated with nootkatone alone or with the nootkatone-borate mix was consumed in significantly lower amts. than the control, and termite survival was comparable to results obtained for starved termites. A significant progressive redn. in the total no. of protozoa was obsd. for all groups, including the controls. Thus, nootkatone acts as a feeding deterrent, inducing starvation that results in almost a complete loss of Pseudotrichonympha grassii , the most important flagellate species for cellulose digestion in this termite.

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT **4674-50-4**, Nootkatone 12280-03-4, Disodium octaborate tetrahydrate
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(effects of nootkatone and octaborate on formosan subterranean **termite** and its symbiont protozoa)

L5 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:473165 CAPLUS
DOCUMENT NUMBER: 135:103770
TITLE: Nootkatone is a repellent for formosan subterranean termite (Coptotermes formosanus)
AUTHOR(S): Zhu, Betty C. R.; Henderson, Gregg; Chen, Feng; Maistrello, Lara; Laine, Roger A.
CORPORATE SOURCE: Department of Biological Sciences, Louisiana State University Agricultural Center, Louisiana Agricultural Experiment Station, Louisiana State University, Baton Rouge, LA, 70803, USA
SOURCE: Journal of Chemical Ecology (2001), 27(3), 523-531
CODEN: JCECD8; ISSN: 0098-0331
PUBLISHER: Kluwer Academic/Plenum Publishers
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Nootkatone, a sesquiterpene ketone, isolated from vetiver oil is a strong repellent and toxicant to Formosan subterranean termites. The lowest effective concn. tested was 10 .mu.g/g substrate. This is the first report of nootkatone being a repellent to insects.
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT **4674-50-4**, Nootkatone
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(nootkatone as repellent for formosan subterranean **termite**)

L5 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:300439 CAPLUS
DOCUMENT NUMBER: 134:306624
TITLE: Vetiver oil components as termite repellents and termiticides
INVENTOR(S): Henderson, Gregg; Laine, Roger A.; Heumann, Donald O.; Chen, Feng; Zhu, Betty C. R.
PATENT ASSIGNEE(S): Louisiana State University and Agricultural and Mechanical College, USA
SOURCE: PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001028343	A1	20010426	WO 2000-US29006	20001018

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1221854	A1	20020717	EP 2000-972286	20001018

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL

PRIORITY APPLN. INFO.: US 1999-160251P P 19991019
WO 2000-US29006 W 20001018

AB Exts. of vetiver oil were found to significantly repel termites. Nootkatone was isolated and found to be a significant repellent and toxicant of termites. Nootkatone significantly decreased food consumption, decreased tunneling behavior, and increased mortality in termites. Nootkatone is an effective repellent and toxicant of termites either by itself or as an addn. to other materials or substrates, including mulches made from vetiver grass roots or other wood products. Nootkatone can also be used to protect construction wood from attack by Formosan subterranean termites. Nootkatone as a repellent is nontoxic to humans and other mammals and is environmentally safe. In addn., .alpha.-cedrene was found to be a weak termite repellent; and both zizanol and bicyclovetivenol were found to be repellents and toxicants of termites.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 469-61-4, .alpha.-Cedrene **4674-50-4**, Nootkatone **5957-31-3**, Bicyclovetivenol **28102-79-6**, Zizanol
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(vetiver oil components as **termite** repellents and termiticides)